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A Course in History of Education

By R. W. TYLER

COURSES in history of education have frequently been criticized by graduates of colleges of education who are now teachers. They maintain that the subject does not contribute to their effectiveness in teaching, that it seems to have little relationship to their professional activities. On the other hand, some educational historians argue that the subject can make a real contribution to the training of teachers by helping to explain how our present educational institutions came to be, why teachers carry on the activities which they now perform, and how our current educational theory emerged.

The fact that many graduates do not believe that history of education has served this explanatory function is probably due in part to the difficulty in selecting and organizing content which will be most helpful in explaining our common educational theory and practice. Both the materials and the organization of the subject have been largely traditionalized. Where an individual instructor attempts to work out his own course, the lack of standards for selecting the most useful content means that the choice is largely made on the basis of undefined or unrecognized criteria which he applies subjectively. There is a need for a method of selecting and organizing content which will make more certain the development of courses actually helpful in explaining the present educational order.

The technique here described should be useful since it substitutes for undefined criteria a list of definite items which the instructor may use with greater precision for guiding him in the selection of content. The method was followed by the writer in constructing a course in the history of modern education which he offered during the summer of 1929 at the University of Chicago.

In constructing the course, three groups of items served as specific criteria to guide in the selection of material. First, an analysis was made of the typical structure of the public-school systems in which University of Chicago graduates are employed. The number of grades in the various levels of school instruction, their relation one to another, the organization and administration of the schools, their control, and support were conditions tabulated for the various states represented by the University of Chicago graduates. Guided by this tabulation, shown in Table I, Part A, historical content was to be selected which would explain the development of these typical conditions in our present educational structure.

The second group of items which were listed to serve as specific criteria contained the activities which teachers who are graduates of the University of Chicago frequently perform. In connection with the *Commonwealth Teacher Training Study*[1] a comprehensive list of teachers' activities had been rated by graduates of the University of Chicago with reference to the frequency with which they performed these duties. Those activities which were rated in Deciles 1 and 2, and which were performed by more than half of the teachers, that is, the twenty per cent most frequent activities performed by a majority of the teachers, were listed. The activities which were included are given in Table I, Part B. Guided by this list, historical content was to be selected which would explain how teachers came to perform these particular duties.

The last group of items collected were those activities which educational leaders thought were important, yet which teachers were not commonly performing. To obtain this list the *Commonwealth Study* was again consulted. The comprehensive list of teaching activities had been rated by a group of professors of education with reference to the importance of the duties. Those activities which were rated in Deciles 1 and 2 for importance by professors of education, and at the same time were rated below Decile 3 for frequency of performance by teachers, were listed, as shown in Table I, Part C. These duties are those which are considered highly important by educational leaders and yet are not commonly performed by teachers.

[1] Charters, W. W., and Waples, Douglas. *Commonwealth Teacher Training Study*. Chicago: University of Chicago Press, 1929, Table A, p. 493. The ratings used were those obtained from graduates of the University of Chicago. Part C, Table I of this article is taken from p. 564.

TABLE I

Criteria Used for Selecting Content

A. Important Structural Characteristics of Present Educational Institutions—

1. Eight-grade elementary schools with four-year high schools common in northern states
2. Seven-grade elementary schools with four-year high schools common in southern states
3. Kindergartens common in city school systems
4. Six-year elementary schools with three-year junior highs common in northern cities
5. Six-year elementary schools with two-year junior and three-year senior high schools common in southern cities
6. Four-year public colleges for high-school graduates common to all states
7. Two-year public junior colleges for high-school graduates common to certain cities
8. The local school district organization in northern states
9. The county or parish school in southern states
10. The organization of state school departments for supervisory and fiscal aid common to all states
11. The township high-school organization common to certain sections
12. The school officials: boards of education; state, county, city and village superintendents; principals and teachers, common to all states
13. The control of education through elected boards of education common in northern states
14. The control of education through appointed boards of education common in southern states
15. The control of education through self-perpetuating or denominational boards common in colleges and in a few publicly supported city schools
16. The support of education through taxation common in all states
17. The support of education through private gifts or permanent endowments common to colleges

B. Frequent Activities of Teachers Who Attended the University of Chicago—

1. Planning methods of developing interests
2. Planning methods of instruction
3. Utilizing plans
4. Securing adequate command of subject-matter to be taught
5. Taking account of specific objectives
6. Selecting subject-matter with reference to pupils' needs
7. Selecting subject-matter with reference to pupils' abilities
8. Finding difficulty of materials
9. Emphasizing uses and values of class work
10. Using interesting methods of instruction
11. Selecting types of instruction adapted to needs of class
12. Presenting supplementary materials
13. Selecting effective illustrations
14. Economizing time
15. Conducting reviews
16. Adapting assignments to the abilities and needs of the class

TABLE I *(Continued)*

B. Frequent Activities of Teachers, Etc. *(Continued)*

17. Following up assignments
18. Avoiding unnecessary participation by teachers in class work
19. Distributing opportunities to individual pupils
20. Allowing pupils to assume adequate responsibility
21. Administering tests
22. Diagnosing pupils' difficulties and needs
23. Expressing interest in individual pupils through such traits as sympathy, etc.
24. Expressing qualities of leadership, such as self-confidence, fairness, etc.
25. Teaching pupils to develop useful interests, worthy motives, and sincere appreciations
26. Teaching pupils to develop traits and habits
27. Teaching pupils to solve problems
28. Teaching pupils how to improve skills and abilities
29. Teaching pupils to make practical use of materials studied
30. Teaching pupils to make economical use of time
31. Teaching pupils to find desired information from reading
32. Teaching pupils to recall useful information obtained from reading and experience
33. Teaching pupils to analyze problems
34. Teaching pupils to organize material in proper form
35. Teaching pupils to memorize material
36. Teaching pupils to take tests and examinations efficiently
37. Teaching pupils to correct errors
38. Making out records and reports about attendance and marks
39. Explaining regulations with regard to personal conduct in classroom
40. Enforcing instructions to pupils concerning such matters as observing school regulations
41. Enforcing instructions to pupils concerning such matters as developing personal traits and habits
42. Enforcing instructions to pupils concerning such matters as moving about the building in an orderly fashion
43. Enforcing instructions to pupils concerning such matters as refraining from interfering with other pupils' work
44. Enforcing instructions to pupils concerning such matters as conforming to classroom regulations
45. Enforcing instructions to pupils concerning such matters as attending to class work
46. Enforcing instructions to pupils concerning such matters as responding to teacher's directions and suggestions
47. Establishing authority over pupils
48. Adapting teacher's procedure to individual differences
49. Regulating pupils' extra-curricular activities
50. Securing position from local school board
51. Supporting policies adopted by principal
52. Securing position from superintendent
53. Supporting policies of superintendent
54. Saving money
55. Avoiding risks to health
56. Taking recreation

TABLE I *(Continued)*

C. Activities Rated Important by Educators but Not Commonly Performed by Teachers—

1. Evaluating objectives
2. Correcting physical defects of pupils
3. Making excursions to points of interest
4. Forming proper health habits in pupils
5. Safeguarding pupils against contagious diseases
6. Conducting routine health inspection
7. Grouping pupils
8. Providing worth-while occupations for pupils
9. Scheduling musical and dramatic activities
10. Giving advice and information to parents
11. Developing a co-operative spirit in parents and community at large
12. Attending to school visits of parents
13. Joining and paying dues to professional, social, cultural, and recreational organizations
14. Observing and reporting upon different types of teaching
15. Maintaining proper temperature in school building
16. Securing proper lighting for all parts of school buildings
17. Securing proper ventilation in schoolrooms and hallways
18. Keeping building clean and orderly

Guided by this list, historical content was to be selected which would explain this difference between theory and practice, that is, the content should explain how the theory which recognizes these activities as important developed, and how it happens that teachers are not commonly performing these duties.

THE three lists shown contain 91 items which were to be used as criteria for selecting the content. This large number could be used more conveniently if the specific items were classified into groups rather than treating each one as a separate unit. A classification which would place together those items whose developmental histories were somewhat similar would facilitate the organization of the course, for the material could be organized into a few major units instead of 91 divisions. The classification of the 91 specific items which was made is shown in Table II. It is not a discrete classification, but it provided twelve major units of content which were serviceable in teaching the course. Thus items 1, 2, 3, 4, 5, 6, and 7 of Part A, Table I are listed under Division I.

With these items thus classified to serve as criteria, textbooks and sources in the history of education were consulted to collect those historical facts, forces, persons, and events which

TABLE II

THE CLASSIFICATION OF NINETY-ONE SPECIFIC CRITERIA

1. The Organization of Schools—
   This classification included the following items from Table I: Part A, Nos. 1, 2, 3, 4, 5, 6, 7.
2. The Control and Support of Education—
   Part A, Nos. 8, 9, 10, 11, 12, 13, 14, 15, 16, 17. Part B, Nos. 50, 51, 52, 53.
3. The Training of Teachers—
   Part B, No. 4. Part C, Nos. 13, 14.
4. The Teacher's Relation to the School Curriculum—
   Part B, Nos. 5, 6, 7, 8. Part C, No. 1.
5. The Techniques of Instruction—
   Part B, Nos. 2, 3, 11, 12, 13, 14, 15, 16, 17, 27, 30, 31, 32, 33, 34, 35.
6. Pupil Activities in Learning—
   Part B, Nos. 18, 19, 20, 25, 26, 28, 29. Part C, Nos. 3, 8.
7. Motivation and Pupil Discipline—
   Part B, Nos. 1, 9, 10, 23, 24, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47.
8. Tests and Provisions for Individual Differences—
   Part B, Nos. 21, 22, 36, 37, 48. Part C, No. 7.
9. Physical Education and Health—
   Part C, Nos. 2, 4, 5, 6.
10. Care of the School Physical Plant—
    Part C, Nos. 15, 16, 17, 18.
11. The Teacher's Responsibility for Extra-curricular Activities—
    Part B, No. 49. Part C, No. 9.
12. The Home and Community Activities of Teachers—
    Part B, Nos. 54, 55, 56. Part C, Nos. 10, 11, 12.

would be helpful in explaining the development of our educational structure, of our teaching practice, and of our teaching theory as represented by the three lists. For example, under Division 4, "The Teacher's Relation to the School Curriculum," there is the activity "selecting subject-matter with reference to pupils' abilities." In collecting historical material which will explain the development of this activity the facts about Comenius' work at Lissa and Pestalozzi's school at Yverdon, the social forces supporting the theories of such men as Rousseau and Franklin, and the pilgrimage of American educators to Germany are illustrations of material collected.

IN this procedure two facts are noteworthy. The judgment as to whether given historical material helps to explain a specific item in the list is subjective, but it is not nearly so subjective as the selection without the lists. Three graduate stu-

dents consulting the same sources, but working independently, were asked to select content to explain the development of the items contained in Division 7, "Motivation and Pupil Discipline," just given. More than 80 per cent agreement resulted. That is, more than four-fifths of the content selected by the average student was selected by all three students. This is about double the amount of agreement obtained when material is selected without the specific criteria, a marked evidence of the greater objectivity of the selection by this method.

The second suggestive fact most noticeable was the distinct shortage of material which might be used to explain many of these specific items. For example, most of the textbooks contain little material to explain many of the items in Division 6, Table II, "Pupil Activities in Learning." Even the material commonly available to students on the history of teacher training is much less than might be supposed. These shortcomings might very well indicate needed research in educational history to determine those forces and conditions leading to the development of certain of our educational institutions, practices, and theories. The blank pages in our functional history of education may be identified in this fashion.

AFTER we had selected the content, the task of organizing it for instructional purposes was yet to be attacked. The material might possibly be organized in terms of the items which it explains, that is to say, each activity might be taken up in turn with the question, "How did this develop?" There is a danger in such an organization particularly for an introductory course in educational history. Students are likely to lose the chronological sequence. They will recognize the historical facts merely in isolation or with reference to the particular condition being explained. Hence, an organization largely chronological with particular emphasis upon the outstanding forces of each period was adopted[2] for presenting the material collected. After the material had been presented in chronological sequence, the students were to reorganize it to explain the material in the three lists.

The plan of teaching is graphically shown in Table III, where it may be seen that the same content can be included

[2] This unit organization was developed and used at Chicago in the Summer Quarter, 1928, by Hal G. Blue, of Colorado State Teachers College.

both in the organization according to the horizontal units, largely chronological, named and lettered at the left of the table and in the organization named and numbered in the vertical columns. Although the historical material selected for the course was that which helped to explain the major types of educational structure and teaching activities, the material was first presented to the students in accordance with the units

TABLE III

TWO METHODS FOR ORGANIZING CONTENT IN HISTORY OF EDUCATION

By Units Which Are Largely Chronological Periods	By the Major Types of Educational Structure and Teaching Activities Which the Historical Material Helps to Explain											
	1	2	3	4	5	6	7	8	9	10	11	12
	The Organization of Schools	The Control and Support of Education	The Training of Teachers	The Teacher's Relation to the School Curriculum	The Techniques of Instruction	Pupils' Activities in Learning	Motivation and Pupil Discipline	Tests and Provisions for Individual Differences	Physical Education and Health	Care of the School Physical Plant	The Teacher's Responsibility for Extra-curricular Activities	The Home and Community Activities of Teachers
A. The Background of the Renaissance about 1100-1300												
B. Classicism about 1300-1500												
C. The Reformation about 1500-1750												
D. Inductive thinking and realism about 1550-1750												
E. Social changes and the development of educational theory and practice about 1750-1900												
F. Education as an expression of national consciousness about 1750-1900												
G. Education in America about 1620-1900												
H. Modern conceptions and tendencies in education 1900-1929												

named at the left of the table. In the first nine weeks of the quarter these units were considered one at a time so that the students might get the sequence and story of educational development. Class exercises during this period involved the selection of forces which were noticeably influencing education in the past and which have potent influence today, as well as requiring students to organize the main points of the story of educational development.

The last three weeks of the quarter were employed to provide an opportunity for the students to reorganize the material. In this period the specific items of educational structure, practice, and theory given in Tables I and II which had been used as criteria were presented to the students. These were grouped into the twelve units shown in Table III and the class exercises called for an organization of historical material so as to explain these items. This required a reorganization of content already considered in the previous period and at times a collection of additional material by the student when his previous information failed to provide an adequate explanation.

THE success of this procedure in selecting, organizing, and presenting this course was not objectively determined. The only estimates of its value now available are subjective ones. From the point of view of the instructor it required more time and greater care in judgment than he commonly employed in formulating courses. From the standpoint of the student's interest, there is no doubt in the writer's mind that the class was more interested and enjoyed the course more than the typical class which he had previously taught. Many of the students volunteered the statement that the content was stimulating, vital, and interesting. However, no comparison has been made with the interest of a class employing traditional content but with superior teaching.

The final estimate made was the success of the class upon an examination which required the students to explain the development of certain practices and theories which, being in Decile 3 of the Commonwealth list, had never been presented to the class before. These papers were rated subjectively, and the results tabulated. Ninety-five per cent of the class were able to give a satisfactory explanation of the development of three-fifths of the items presented. More than one-half the class were able to give a satisfactory explanation of four-fifths of the items. It is the writer's opinion after this experience that the technique is worthy of further use with a view possibly to a more objective evaluation of its possibilities in developing courses in history of education which will really help students to understand the educational world of today.

Two Recent Books on Arithmetic

By W. J. OSBURN

FOR more than a decade strong forces have been operating to eliminate much of the arithmetic taught in the elementary and junior high school. These forces received initial impulse from the committee of the National Education Association that was appointed to consider the question of economy of time in education. They gained great momentum with the publication of Wilson's monograph, the *Survey of the Social and Business Usage of Arithmetic* in 1918. Since then the trend toward limitation has continued with considerable strength. The two most recent contributions to this movement will be considered in detail in this article.

The first is entitled *The Relative Merits of Conventional and Imaginative Types of Problems in Arithmetic.* The main purpose of the study is "to determine which type of arithmetic problem, the conventional or the imaginative, possesses the greater value as an exercise to aid in generalizing knowledge of the fundamental operations." The term "conventional" is used to describe the type of problems in arithmetic which are "stated in the shortest, simplest and most direct language possible." The term "imaginative" is used to describe the type of problem which contains "elements of the total situation which are interesting and have an imaginative appeal, but whose presence is not germane to the problem under consideration nor necessary for an understanding of the mathematical elements of the situation presented."[1]

Ten pairs of problems were used in the first test, each pair containing problems involving the same processes but differing in form and units. One problem of each pair was of the conventional type while the other was imaginative. A grand total of 3,967 solutions of these problems was obtained from 433 pupils in Grades V and VI of three city schools. In these tests the correct procedure was recognized in more of the imaginative problems than of the conventional, but the difference was not significant.

A similar test constructed by Garry Myers was also given to 660 pupils in Grades V-B and VIII-A in one city. The re-

[1] Wheat, Harry Grove. *The Relative Merits of Conventional and Imaginative Types of Problems in Arithmetic.* New York: Teachers College, Columbia University, 1929. p. 1. (Teachers College, Columbia University, Contributions to Education, No. 359)

sults again showed a slight advantage for the imaginative problems. Later a test, similarly constructed, was given to 631 pupils in Grades V and VI in several cities, but in this case the conventional problems were expanded somewhat to make them "less difficult to understand by describing more fully and indicating more specifically what may be termed their strictly mathematical elements." Again the imaginative type showed to better advantage in most cases.

Each of the 631 pupils was also given collateral tests to measure ability in silent reading, carefulness, accuracy in the fundamental operations of arithmetic, and reasoning ability. Finally, a test of ten pairs of problems similar to the others was given under time pressure—the other problem tests had been given without time limits. In the last test the conventional problems were markedly superior.

Since there are no significant differences between the two types of problems except when time is held constant, the author suggests that the longer imaginative problems should be omitted from textbooks on the "double grounds of economy of lesson procedure, and of economy in cost of publication and in cost of books to pupils."

THE statistical procedure is generally sound, sometimes ingenious, and occasionally vague. The study is carefully thought out and honestly done. In two places, however, there is room for question as to the validity of the statistical procedure. Both of these relate to the use of the coefficient of correlation. In at least two cases correlations are figured which are partly based upon the number of problems solved. The distribution of the number of problems solved is not normal; in fact it is clearly of the U type. The use of the Pearson coefficient of correlation with distributions of this sort may be justifiable if the regression lines are rectilinear. This necessary condition is not substantiated, and the use of the Pearson technique is therefore open to question.

Again, the Pearson correlation was originally intended for use with two variables only. In a number of cases in this study it is used where three and even four variables are involved. For example, a correlation is shown between intelligence quotients and indices of similarity scores. In this case four variables are really involved, but they appear as two because quotients of

respective pairs are used. In other words, if one wishes to get a correlation and is embarrassed by the presence of four variables instead of two, he may just pair the variables, get their quotients, and proceed with the calculation of a correlation. This is handy, but hardly justifiable, as a statistical procedure.

Aside from matters of statistics the study is open to more serious question. The author divides all problems into two types, conventional and imaginative. This is a most unusual dichotomy. It is not at all clear that the words "conventional" and "imaginative" belong in the same category. Furthermore, a dichotomy demands opposition. The word "imaginative" in dichotomous division should mean unconventional, while the word "conventional" should signify the opposite of imaginative. But this is not the case. Indeed, it is easy to argue that conventional and imaginative problems are really synonymous. In conventional problems, as here defined, the setting is left to the imagination, while in the imaginative problems the setting is made explicit by description but is still not perceptually present. The dichotomy, therefore, lacks the qualities of good logic, and the results cannot help being more or less vague.

THE conclusions which the author derives are questionable, too, from other points of view. Nothing is said concerning the previous training of the pupils who took the tests. It is quite possible that they had been trained in solving conventional problems only. Under such circumstances the margin of advantage shown by the imaginative problems might prove quite significant. In spite of the fact that they had had little or no training in the solution of imaginative problems the pupils did well with them. This might mean the existence of transfer, or it might indicate a marked advantage for the imaginative type when the factor of previous training is properly controlled by acceptable scientific techniques.

The conclusions are open to question also from a still more fundamental consideration. The author apparently assumes that it is most desirable to have arithmetical material that can be bought cheaply and taught quickly and easily. From this point of view the conventional problem has an undoubted advantage. But there is another side to the matter. The arithmetic of life is seldom stated in the "conventional" manner. Quantitative thinking in real life must go on accurately in the

midst of irrelevant elements and must be subsidiary to some project which occupies the focus of the attention. The question therefore is not which type of problem is most economical to teach, or to buy, but which one will better prepare the pupil for quantitative thinking in real conditions—the sorts of situations which he will meet in life.

Furthermore, there are well-known reading difficulties in arithmetic. The vocabulary presents its own difficulties. There are certain problems in which reading between the lines is necessary: those in which the pupil is quite likely to respond to only part of the problematic situation and others in which preconceived ideas are known to play havoc with the child's reasoning. The conventional problem carefully shields the child from all of these difficulties by the simple process of preventing him from meeting them. In such a moron's paradise, with all of the troublesome demons carefully excluded, arithmetic can be taught cheaply, quickly, and easily.

Is this really the kind of arithmetic teaching that we want? Is it fair to train the child in artificial situations from which all difficulties and pitfalls have been carefully banished and then expect him to master the difficulties and avoid the pitfalls when he is compelled to solve problems in real life? None of these questions has been either raised or answered in this study, and for this reason the author is not warranted in saying that the "imaginative" type of problem should be excluded from our textbooks. All that the study proves is that the particular conventional problems used are as easy as the particular imaginative ones and much quicker to solve. These criticisms do not deny, however, that with the point of view which the author has, he has done a creditable piece of research and one which will merit all of the interest which it arouses.

THE second contribution, *Consumers Uses of Arithmetic*, has been widely heralded by the Associated Press as proving that the schools have been teaching eighty-five per cent more arithmetic than is needed. Under the circumstances it is worth while to trace the steps by which the author has arrived at this astonishing result. In the beginning we are told that this is

> a study in curriculum making based upon a sociological determination of one variety of educational values . . . a study of educational objectives in arithmetic, and an attempt to find out what arithmetic should be taught in the elementary

schools of the United States on the basis of what is now actually in use in adult life.[2]

Later the field is carefully limited to non-vocational uses: "Buying at the store for home consumption; making change; reading newspapers, periodicals, and magazines; investing one's savings, aside from one's own business investments; writing letters, etc.; traveling, consulting time-tables, etc.; recreation, golf, bridge, billiards, etc." (That *etc.* should be barred by law from all dissertations.) In brief, we are told that the purpose of the study is to discover the arithmetic needed by the consumers of arithmetic.

THE method is based upon a "general hypothesis of the validity of estimates of competent persons in determining qualitatively and quantitatively social values, social needs, and social interactions." Three hundred forty-five problems were selected from current arithmetics and sent to a large number of parents and guardians in six cities ranging in population from five thousand to more than one hundred thousand, well scattered throughout the United States. These persons were asked to mark each problem either "very often," "occasionally," or "never," according to the need which each person recalled having had for each problem. From these people 682 reports were received. When the results were tabulated, seventy of the 345 problems were marked "very often," but these were used by less than fifteen per cent of those filling out the blank. Therefore "the schools have been teaching more than eighty-five per cent more arithmetic than is required for the accomplishment of the values," which have been mentioned as the activities in which the consumers of arithmetic are engaged. Later the author admits that there is needed "a kind of arithmetical knowledge, relating to economic activities of county, state, or nation, banking, stocks, and bonds, etc., which may well be grouped into proper instructional units." In an unguarded moment we are also told, "If we consider the sum total of arithmetic needs in all walks of life, the amount is prodigious." Apparently arithmetic is not to be destroyed after all. It is a worth-while vocational subject but eighty-five per cent "dud" as a liberal art.

[2] Bowden, A. O. *Consumers Uses of Arithmetic.* New York: Teachers College, Columbia University, 1929. p. 1. (Teachers College, Columbia University, Contributions to Education, No. 340)

To the casual reader this contribution with its clear print and neat format will doubtless seem convincing, but any who looks below the surface will soon find that all is by no means well. There is trouble at the very outset with the assumption that the usage of today should determine the content of the education of those who are to be men and women twenty-five years from now. Who can tell what the arithmetical needs of the world will be twenty-five years from now? Who could possibly have predicted twenty-five years ago what present needs are? Who can be sure present usage is what it should be?

The term "consumer" needs some attention also. Apparently consumers are those who buy goods for home consumption, make change, read the news, invest savings, write letters, travel, play golf, bridge, and billiards. Nothing is said as to the age of the consumer, but evidently the term does not include high-school students who must have square root in geometry, decimals in physics, and proportion in chemistry.

No consumer, according to this study, is expected to do any quantitative thinking. A consumer never needs arithmetic to eke out an inadequate income or provide against poverty in old age. In fact, consumers are never expected to use foresight and make quantitative plans for the future. They have no need or desire for the cultural values of arithmetic. Finally, since none of the 345 problems related to stocks and bonds, it appears that no consumer is expected to take a chance at attaining economic freedom by that route. Surely the definition of "consumer" needs enlargement.

THE author also has a weakness in his armor in connection with his "hypothesis of the validity of estimates of competent persons in determining qualitatively and quantitatively social values, social needs, and social interactions." As a matter of fact estimates are notoriously invalid and are used only as a last resort. But aside from all this the author in reality has not used estimates as a basis of his study. Ostensibly he bases his study upon estimates, for the study is based on remembered uses. This introduces a time element that is disturbing. One may grant that a person can estimate the amount and character of the arithmetic that he has used today and yesterday, but without the aid of a psycho-analyst no one can estimate or even remember what arithmetic he used ten years ago. There is a

vast difference in the validity of an estimate made in the present and one based upon memory.

The author senses this weakness and defends himself by the following statements. First, all historical writers commit to writing only what they remember. Second, whatever we do not remember has been used seldom and is therefore unimportant. Third, it is hardly to be supposed that the six hundred eighty-two persons would all have forgotten the same problems if they were important. Fourth, all that science can ever do is to point out probabilities, to indicate trends.

The looseness of the thinking in this defense is at once apparent. History is not written from memory. It is based upon documents and other objective data. One must question also the statement that what one has forgotten is unimportant. Most of the really vital things in life have long ago become matters of routine. Arithmetic, when well taught, becomes a matter of routine. For example, no man can remember how often or when he has used the fact that there are two pints in one quart any more than he can remember how many buttons must be cared for in the proper adjustment of his waistcoat. This may account for the fact that so many of the subjects forgot the same things. Habitual activities are not remembered. Again, science really does more than point out probabilities and indicate trends. Science can predict.

FINALLY, estimates are supposed to be made by competent persons. From all appearances these parents and guardians were ordinary folks, and one may easily question their competency to make estimates or even express themselves in terms of remembered uses. In passing it is worth while to raise the question of what will be the outcome when this "consumer" method is applied to other subjects in the curriculum. Scarcely a high-school subject will survive. In the elementary school reading, writing, a little spelling, and fifteen per cent of arithmetic will be left and will constitute the curriculum from the kindergarten to the university.

For these reasons it is regrettable that this study should have been made and particularly unfortunate that it should have received so much publicity. It is impossible to believe that our educational heritage is almost entirely a delusion. If educational research is leading us in such directions as this, it

would be better to stop awhile and hope for a resurgence of common sense and straight thinking.

Both of these studies recommend restrictions in the content of elementary-school arithmetic. In the first case the content is to be restricted and diluted by excluding all references to the use of arithmetic in those real situations of life which actually occur. The child is also to be carefully shielded from all difficulties of reading and thinking which are known to produce errors in arithmetical procedure.

In the second case the majority of what has constituted the content of arithmetic in the past is to be omitted on the basis of arguments which seem entirely inadequate. In the mean time the non-expert members of the teaching profession, either from inertia or penetrating intuition, will continue to teach most of what they have been teaching. Furthermore, unless all signs fail, the notion of arithmetic as a liberal art will not be without backing even in the circle of the experts. [Vol. IX, No. 3]

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THE first issue of the *Journal of Higher Education* appeared in January. The contents of this new Journal, as its title implies, will be devoted to the interests and problems of persons engaged in educational pursuits beyond the high-school level. W. W. Charters, director of the Bureau of Educational Research, is editor. W. H. Cowley and Josephine MacLatchy, both members of the staff of the Bureau, are assistant editors. The list of associate editors is most impressive, for every department of collegiate instruction is represented by some professor famous for his accomplishments in that field and also actively interested in the progress of higher education. Since the Journal is another editorial venture sponsored by Ohio State University, comments regarding contents and format can best be made by others.

J. H. M.

Historical Research in Education

By H. G. GOOD

OUR subject is a rather special one, and it deals with the issue of a special kind of printed books. We might, therefore, consult general or special bibliographical works, histories of the press or of printing,[7] or the card catalogue of a large library. We decide upon the last of these and find under the heading "Arithmetic, History of," three promising titles dated between 1917 and 1925.[8] We choose the latest of these first—Karpinski, *The History of Arithmetic*—because it is likely, other things being equal, to have the fullest bibliography since books cannot be listed until after they appear; and there we find (p. 99) in a chapter on arithmetic textbooks a bibliography of nine titles; and in the body of the chapter itself a "List of Arithmetics and Arithmetical Works published in America before 1800," (pp. 85-97) the works being arranged by years of issue. This, if full and correct, is just what we are seeking except for the omission of the year 1800. Let us begin checking it by looking for Nathan Daboll's *Schoolmaster's Assistant* under 1799. We fail to find it either there or elsewhere in the list. The same author has also a shorter list coming down only to 1775 in *Bibliographical Essays* (note 8). Turning to Walter S. Monroe's *Development of Arithmetic*, we find (p. 14n) a list of textbook writers and a short list of textbooks (pp. 157-59). The same study has an extensive bibliography, and in it one item that concerns us directly, namely, Greenwood and Martin's list of arithmetic textbooks.[9]

We have now found four lists that we can check against each other, against other lists or historical notes that we may

[7] Thomas, Isaiah. *The History of Printing in America . . . and a Catalogue of American Publications previous to the Revolution of 1776.* Albany, New York: Joel Munsel, Printer, 1874. 2 vols. Evans, Charles. *American Bibliography, A Chronological Dictionary of All Books, Pamphlets and Periodical Publications Printed in the United States of America from 1639 down to and including the year 1820.* Chicago: Privately printed for the author, 1903ff. [In process, Vol. 10 treating the years 1795-96 having been issued in 1929.]

[8] Karpinski, Louis Charles. *Colonial American Arithmetics*, pp. 240-48. *Bibliographical Essays, A Tribute to Wilberforce Eames*, (Cambridge, Massachusetts: Harvard University Press), 1924. *Ibid. The History of Arithmetic*, Chicago: Rand, McNally and Company, 1925, 200 pp. Monroe, Walter S. *Development of Arithmetic As a School Subject.* Washington: Government Printing Office, 1917. 170 pp. (U. S. Bureau of Education Bulletin, 1917, No. 10)

[9] Greenwood, James M., and Martin, Artemas. "Notes on the History of American Text-Books in Arithmetic" [Published in two parts.] *Report of the United States Commissioner of Education*, 1897-98. Vol. 1, pp. 789-868; 1898-99, Vol. 1, pp. 781-837. [One set of references in Walter S. Monroe (p. 157) is incorrect.]

find, and finally against the primary sources. The lists (full titles, and references in notes 8 and 9) together with certain information about them follow:

1. Greenwood and Martin. Period, 1729-1892; but only 24 items between 1729-1800. Contains many historical notes, gives sources of information, and the sources used were, in many cases, the actual books. Greenwood's work independently verified by Martin.
2. Walter S. Monroe. Period, 1729-1817; about 43 items, information fragmentary and in several particulars incorrect. Probably based upon the preceding.
3. Karpinski, in *Bibliographical Essays*. Period, 1556-1775, including Mexican titles, 29 items.
4. Karpinski, in *History of Arithmetic*. Period, 1556-1799 to which certain Canadian and western titles are added. American colonial and national periods, 1705-1799; 114 items and the present location of the originals or of photographic copies of all except about 23 titles are given.

A secondary check upon one or more of these lists may be obtained by finding competent and fearless reviews of the works in which the lists are published. We have in the first article already referred to the great historical review journals, but they do not, in general, consider many books dealing with special phases of the history of education. Such books are likewise omitted from the review columns of the general magazines, and, even if they were included, the reviews might not be sufficiently critical.[10] Reviews in many educational journals, also, are worthless as criticism. There remain for such a topic as ours the review columns of scientific and mathematical journals. By using whatever indexes and catalogues may be available, good reviews may often be found. We are fortunate in finding such a study of Karpinski's *The History of Arithmetic* from which we extract the pertinent paragraph. The reviewer is a competent student of the history of mathematics. He says:

> The author's list of arithmetics and arithmetical works published on the American continent before 1800 is far more complete than every earlier list for that period. In his bibliography of arithmetics in what is now the United States, one important reference is omitted, namely, "Notes on the History of American Text-Books on Arithmetic" by J. M. Greenwood and Artemas Martin, in the Report of the Commissioner of Education for 1897-1898, p. 789-868, and for 1898-1899, p. 781-837. For the period 1800-1892, these authors give and briefly describe nearly 500 arithmetics published in the United States. They have one book on their eighteenth century list which Karpinski missed, namely, Nathan Daboll's *Schoolmaster's Assistant*, New London, 1799; Karpinski gives the 1802 edition of Daboll [not in his list

[10] *The Cumulative Book Review Digest*. Minneapolis: H. W. Wilson and Company. Published since December, 1905.

at all but at p. 166 in the form of a facsimile page from that edition]. Greenwood and Martin cite a 1737 Philadelphia edition of Bradford's *The Secretary's Guide, or Young Man's Companion,* which our author does not mention. [What is apparently this same item is listed by Karpinski under 1738. Evans also gives it, like Greenwood and Martin, under 1737, and locates a copy in the Historical Society of Pennsylvania.] On the date of the first edition of this text, there is a conflict between our author and Charles Evans in his American Bibliography, Vol. I. Evans gives the date 1698 and cites a second edition of 1705; the 1705 edition is the earliest named by Karpinski, who gives a facsimile of the title page of the 1710 edition which appeared as "The second Edition corrected and enlarged."[11]

The next step for us to take would now be to examine one by one all the examples that we can find of arithmetic textbooks printed in the eighteenth century, using the various lists that we have found as guides and check lists. By careful examination of all the copies that have already been listed and a diligent search for others we might be able to correct and extend the existing knowledge of American textbooks. But for our purpose we need not go any further. The description has already been longer than the actual investigation would need to be and inevitably more tedious, because in the actual discovery of new facts or even of old errors there is a thrill that we miss in reading some other person's how-to-do or not-to-do things.

The question which we have been considering is really in a double sense a bibliographical one. Our list, when completed, will itself be a bibliography; but we have been chiefly concerned with the question of finding titles, a bibliography, which will help us to make this list. Almost every question in history is, at the start, a question of bibliography. All that we can do now to help the reader to a knowledge of bibliography is to add a few titles which will open up its study in a simple way.[12]

[11] Sarton, George (Editor). *Isis, International Review devoted to the History of Science and Civilization.* Brussels, Belgium. VIII (1926), pp. 231-32. [The review is written by Florian Cajori, well-known historian of mathematics.]

[12] Ward, G. O. *The Practical Use of Books and Libraries, an Elementary Manual.* 3rd ed. Boston: Boston Book Company, 1917. 118 pp.

U. S. Bureau of Education *Monthly Record of Current Educational Publications:* Washington: Government Printing Office.

Cubberley, E. P. *Syllabus of Lectures on the History of Education with suggested bibliography . . .* 2nd ed. New York: Macmillan Company, 1904. 2 vols. [out of print.]

Adamson, J. W. *A Guide to the History of Education.* London: Society for Promoting Christian Knowledge, 1920. 47 pp.

Griffin, Grace G. (Compiler) *Writings on American History.* Published since 1904, annually, various compilers and publishers; at present published by the American Historical Association.

Courtney, W. P. *A Register of National Bibliography with a selection of the chief bibliographical books and articles printed in other countries.* London: Archibald Constable and Company, 1905. 3 vols. [A bibliography of bibliographies.]

TO MAKE good progress in answering historical questions the student should collect the material systematically. For this purpose he will need a well-arranged plan of note-taking.[13] W. H. Prescott because of his blindness deliberately acquired the ability to hold in mind and to place into an orderly sequence the details of long chapters of his works; but most people are not geniuses. If they want to have access to large quantities of detailed information they must write it down. This means a system of notes. Great historians like McMaster, James Ford Rhodes, and Edward Gibbon are known to have taken the notes for their extensive writings in bound notebooks. Of this practice one can only say that they succeeded by means of a system that is not the best.

A note-system should be flexible, that is, it should be possible to add to it at any point without disarranging the older material; and it should be possible to rearrange the notes at will. This requires that the notes be taken on separate sheets, slips, or cards. Each piece should as far as possible contain a complete item, but when the matter to be noted is too extensive it may be continued on successive pieces and these numbered in series. Not more than one item should ever be placed upon a single piece. Each piece should have a subject-heading at the top and a margin for indexing, etc., at the left. For most kinds of historical note-taking two sizes of paper are desirable. What the sizes shall be will be determined by convenience in using and convenience in filing. Probably the most useful sizes are the 3x5 or 4x6 cards for small items and the ordinary letter-size paper for larger passages.

About three different kinds of notes are regularly made by historical workers. The first is the bibliographical note which always contains the standard data, author, title, pages, place and date of publication, and other formal facts about a document. It should usually have in addition a brief analysis of the contents and some account indicating the uses and the defects of the document. The second kind is the subject note which contains one item of information about a particular topic, with the source whence it was obtained. The great body of notes collected by any student will usually come under this head. One caution may be given here. Do not copy out long passages

[13] Dow, Earle W. *Principles of a Note-System for Historical Studies.* New York: Century Company, 1924. 124 pp. + many sample notes.

in readily accessible works but rather abbreviate and summarize. A third kind may be called the method notes. In collecting such material one constantly comes across suggestions or thinks of ideas which seem useful in interpreting the facts. Such suggestions or interpretative ideas do not fit into either subject or bibliographical entries, but they must be noted or they will be forgotten. Finally, when any extensive body of information is collected, an index and a more or less elaborate system of cross references becomes useful. Each card or sheet will indeed have, at the top, a title which gives in a word or two the particular contents of that piece. These titles themselves form a sort of index. But the cards are constantly being rearranged for special purposes. A separate index, modified from time to time, will help in the final organization and discussion of the materials.

Having collected some information upon a subject the student will desire to arrange it and present it in such form that others may get the benefit of his studies. This is partly a mechanical problem, the problem of documentation. It is partly a logical problem also, because it involves the question of the relative importance of the several items and topics. Finally, it is a philosophical and an artistic problem, because every historian, deliberately or in spite of himself, interprets what he presents.. Here are, at least, three important fields of historical method which we have not touched. The reader can find information on them in Bernheim, Vincent, Langlois and Seignobos, and other writers who were mentioned in the first article of this series. [Vol. IX, No. 3]

THIS year, for the first time in the history of the Ohio State Educational Conference, two general meetings will be held on the second evening of the program, Friday, April 3. The meetings, each attractive in itself, represent varied interests. E. H. Sothern, known as "America's greatest actor-producer," will be presented in a recital program in the auditorium of North High School. He will present "The Murder Scene" from *Macbeth*, "The Trial Scene" from *The Merchant of Venice*, and several scenes from *If I Were King*. A second program, more specifically directed toward the professional interests represented in the Conference, will present W. F. Russell, Dean of Teachers College, Columbia University.

EDITORIAL COMMENT

THE "Wilkins' Communication" addressed by him to the graduate schools of the universities for the Association of American Colleges, presents a number of suggestions upon the preparation of college teachers. These suggestions have become the basis for self-examination by several graduate schools of which Ohio State University is one. In our institution a committee has collected a number of interesting facts about its former graduates and its present doctoral students.

It finds, for instance, that fifty-eight per cent of its doctors are engaged in teaching, and that seventy per cent of its doctoral students plan to teach. We are, therefore, in part a training institution—a teacher's college for college teachers.

We are rather surprised to find that ninety per cent of the doctoral students enrolled this year have had experience in teaching and a median experience of three years. Ten per cent have taught ten years or more, and only ten per cent are without experience. Of our experienced doctoral students, sixteen per cent are former college teachers; thirty-two per cent are former high-school teachers; and thirty-eight per cent have had experience in the University, either as instructors or assistants.

It is, also, interesting to note that of the fifty most recent doctors, thirty-two have had undergraduate courses in education, and of these only eight took their graduate degrees in that subject. That is to say, only one-third of the doctors have not had courses in education as undergraduates.

Courses in college teaching are offered at Ohio State University, and supervision of teaching is carried on among the doctoral students who teach Freshmen. Our constituency is not yet ready to grant a teaching degree as an alternative to the Ph.D. for college students, but sentiment is growing for the degree Ed.D. in the academic subjects.

In general, our graduate school is covering all the services mentioned in the Wilkins' communication except that of the teaching degree. While the services are being covered, modesty and honesty compel us to say that the quality of the service can be improved. It will be interesting to see whether our teacher-training situation is typical of the graduate schools.

READINGS

SMITH, HARRY P. *Business Administration of Public Schools.* Yonkers-on-Hudson, New York: World Book Company, 1929. xv + 432 pp.

Professor Smith's book may be considered the fourth major contribution to this field as far as textbooks are concerned. The three previous publications are Engelhardt and Engelhardt's *Public School Business Administration* (1927), Engelhardt and Alexander's *School Finance and Business Management Problems* (1928), and Reeder's *The Business Administration of a School System* (1929).

Professor Smith discusses the school board, unit versus multiple control of city school administration, budgetary procedure, accounting, financial reports and publicity, pay roll accounting, operation and maintenance of the school plant, insurance, purchasing and supply management, school-building planning and constructing, and financing programs of capital outlay. The appendix includes a variety of records and forms. The various chapters are followed by rather extensive bibliographies, and numerous studies are summarized and cited in footnotes. Thirty-six tables and thirty-one figures make more concrete and tangible the discussions presented. School administrators in service, school boards, and students in graduate classes in school administration will welcome this addition to the field.

CARTER V. GOOD
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ADLER, ALFRED. *The Case of Miss R.* New York: Greenberg, Incorporated, 1929. xxii + 306 pp.

In reading the textbooks on psycho-analysis, one frequently wishes that the author had given greater detail concerning his method interpreting the patient's self-revelations. Yet it is at precisely this point that the student finds his reference books most obscure. In *The Case of Miss R*, Dr. Adler takes us into his confidence and discusses, sentence by sentence, the history of the development of a neurosis as it was presented to him by the patient. He shows in a clear-cut fashion just what words and phrases furnish him with his diagnosis of the condition as it develops.

The viewpoint of the book is that of individual psychology. This is summarized clearly in the introduction written by Dr. Friedrich Jensen. Unless one is quite familiar with the technical literature of the field, he may miss the fine points of the discussion, at times, but anyone who is interested in human motives cannot fail to find the book stimulating, regardless of what theory of psycho-analysis he himself may hold.

EMILY LEATHERMAN STOGDILL

TINK, EDMUND LEWIS. *Certain Phases of County Educational Organizations.* New York: Teachers College, Columbia University, 1929. 103 pp. (Teachers College, Columbia University, Contributions to Education, No. 363)

This study is made of county educational organizations in Florida, Alabama, North Carolina, and Maryland. The study undertakes two specific things: first, to determine whether the elective or the appointive system of

selecting county superintendents secures the best qualified educational leadership, and second, to determine the relationship of the special-tax school district to the principle of equal educational opportunity.

The author concludes that the appointive system secures superintendents with better training and more experience for the same money, holds them longer, keeps them growing more effectively professionally, and secures better educational service from them than the elective system does. He further concludes that the inequalities by districts are revealed in the following phases of educational support and opportunity: wealth, tax rates, tax amounts, delinquent term, attendance, buildings and equipment, and teachers salary.

D. H. SUTTON

WHITFORD, WILLIAM G. *An Introduction to Art Education.* New York: D. Appleton and Company, 1929. xvii + 337 pp.

This book is a resumé of the situation of art education in America dealing with the subject from numerous angles. Some of the twenty chapters center about such matters as: changing status of education; history of art education in America; modern tendencies in art education; survey of industrial and fine arts needs in American life; the school and its art needs; the course of study; terminology study of the federated council of art education; suggested art courses for elementary schools; plans for courses in secondary schools; art supervision; appreciation tests; research in art education.

The book presents a highly formulated plan of curriculum-making with numerous tables, graphs, and scales, all of which present art as a crystallized subject with definitely classified lines of attack rather than a living factor intimately related with individual lives. Formal ability tests with methods of scoring and tabulating individuals are emphasized. These, with the many plans presented in the book, suggest the author's aim as being to tabulate all phases of art education so that accepted principles and techniques may be definitely planned and quickly and efficiently taught in a formal way to highly organized classes, as contrasted with the plan which emphasizes such factors as individual differences, art understanding, and creative ability.

FELIX PAYANT

SCOTT, HARRY ALEXANDER. *Personnel Study of Directors of Physical Education for Men in Colleges and Universities.* New York: Teachers College, Columbia University, 1929. 90 pp. (Teachers College, Columbia University, Contributions to Education, No. 339)

This doctor's thesis reports information secured by questionnaires from 178 heads of college or university departments of physical education for men. The information is presented under four headings: duties, salary and vocational progress, academic status and training, and personal and social relationships, with separate tabulations for state, private, and denominational institutions. The report shows that 78 per cent of the directors are also directors of athletics and that 69 per cent are active coaches; 46 per cent are responsible for teacher training; 34 per cent for hygiene instruction; and 30 per cent for women's physical education. One notes that 23 per cent of the men have the master's degree, 2 per cent the Ph.D., and 7 per cent the M. D. The author makes a clear presentation of what seems to be the most instructive facts.

DARWIN A. HINDMAN

CHUBB, PERCIVAL. *The Teaching of English in the Elementary and Secondary School.* New York: Macmillan Company, 1929. xxvii + 594 pp. (Teacher's Professional Library)

Ever since Mr. Chubb's *The Teaching of English* appeared in 1902, it has been looked upon and used by English teachers as one of the soundest, most thoughtful, and best written books on the subject. Since 1902 the book has been frequently reprinted. The present edition is different in many respects from the previous ones; it has been largely revised and rewritten.

Mr. Chubb treats with considerable thoroughness the problems of composition and literature teaching in the three or four major divisions of public education. A division each is given to the primary grades, the middle elementary grades, the junior high school, and the senior high school. The specific problems particularly pertinent to each of these divisions are given brief and direct treatment as are, of course, the major problems relating to composition and literature teaching in the large.

Mr. Chubb's writing possesses a distinctive style. It is always lucid and frequently sparkling. Ever it is warm and friendly. Both in manner and matter there is tolerance and kindliness. Further, in this pseudo-scientific educational age of ours, one is occasionally delighted to find that certain writers on educational subjects continue to dare to be personal and subjective. Mr. Chubb is one of these. I suspect that he more frequently comes close to the truth about certain imponderables of life than the professional statistician who finds it necessary very frequently to begin his sentence with: "These data prove . . . ."

HOWARD FRANCIS SEELY

NEWKIRK, LOUIS V., AND STODDARD, GEORGE D. *The General Shop.* Peoria, Illinois: Manual Arts Press, 1929. 190 pp.

For a number of years past, critics of the general-shop idea have rationalized their reluctance to take up this type of work on the grounds that no adequately prepared teachers were available. Apparently in reply to this rationalization, the authors of this book devote two chapters to a discussion of teaching and management devices, in an honest attempt to protect the beginning teacher from the pitfalls of confusion and slovenliness so common to poorly conceived and poorly organized shops, in general, and to "general shops," in particular. Chapters I, V, and VI include further reference to organization problems.

Chapter VII on tests and measurements is valuable in view of the growing tendency in industrial-arts education to take stock of itself. Here again a new note is struck for texts in this field. The closing chapter on teachers' preparation would better have been omitted as all of the research that has been done in this phase is ignored.

While positively recommending the book to all of his students and to the interested readers of this magazine as well, the present reviewer feels that the authors have published their views a bit prematurely. This is shown by the empirical treatment throughout and by the lack of reference to the many ramifications of the movement in the country as a whole as well as a tendency to omit professional references to the many studies of a more or less scientific nature that apply to successful general-shop teaching.

WILLIAM E. WARNER

BARR, A. S. *Characteristic Differences of Good and Poor Teachers of the Social Subjects.* Bloomington, Illinois: Public School Publishing Company, 1929. vii + 127 pp.

BAKER, H. J. *Educational Disability and Case Studies in Remedial Teaching.* Bloomington, Illinois: Public School Publishing Company, 1929. x + 172 pp.

In this first book we have a study that analyzes the work of both the poor teacher and the good teacher in an effort to arrive at an objective statement of those things which good teachers always do that poor teachers invariably leave undone. Such a statement might solve many supervisory problems. This the study hoped to do. This reader, however, is not led to believe that supervisors in the social sciences will rush into a plan of objective supervision as a result of this report; nor does he believe that Professor Barr, who is quite modest in reporting his findings, anticipates a result of this kind.

The most interesting chapters in the book are those dealing with the qualitative and the quantitative differences in the teaching of good and poor teachers, and the one suggesting items to observe in the supervision and improvement of the teaching of the social studies. The author discovers no critical factors that serve to distinguish the good teacher from the poor teacher. He does find, however, a number of contributing factors.

One of the contributing factors which mark off the good from the poor teacher is the "provision for individual differences" and, in a measure, this second book tackles the teaching problem on this level. In reality, it is a report of an investigation carried on with sixty nine-year-old pupils in seven Detroit elementary schools during the school year 1924-1925 for the purpose of determining the value of "educational coaching." Mr. Baker is in no sense dogmatic in his discussion of the results of coaching; he is led, however, in terms of his evidence, to express the view that coaching offers an opportunity to lend aid to students who suffer from educational disabilities.

Both books report investigations. They, therefore, are most explicit. Perhaps it is this fact which makes them quite repetitious and somewhat dull.

H. GORDON HULLFISH

In Paper Covers

Sixteenth Annual Conference on Educational Measurements. Bloomington, Indiana: University of Indiana, 1929. 96 pp. (Bulletin of the Bureau of Co-operative Research, Vol. V, No. 6)

This report of the conference held at Indiana University in April, 1929, provides a current cross-section of the varied activities and interests in educational measurements. Among the discussions of especial significance are those dealing with methods for predicting success in college, in teaching, and in trades. The studies reported verify reports of similar investigations elsewhere. Prognosis is a vital problem, but reliable and valid methods of prediction are yet to be perfected.

The bulletin includes reports on college teaching, on the construction of an index for comparing the efficiency of high schools, and on measuring achievement in the college. Professor Wright's description of method for constructing new-type tests will be found particularly suggestive to teachers.

R. W. TYLER

FOOTE, J. M. *A State Equalizing Fund for Public Education.* Baton Rouge, Louisiana: State Department of Education, 1929. 51 pp. (Bulletin, No. 166)

At the present time the Louisiana constitution provides that the state school fund, amounting to about five millions of dollars annually, shall be distributed on the basis of the number of children six to eighteen years of age as shown by the school census. This fund is derived from a state tax of two and one-half mills and a part of the state severance tax. The chief objection to the plan is that it does not take account of the financial ability of the district to support schools.

To correct the situation, the writer proposes that in addition to the present state fund there be created an equalizing fund to be distributed as follows: (1) Determine first the minimum acceptable educational program and, second, the support expected from each parish. (2) Calculate the cost of this minimum program for each parish allowing not to exceed 10 per cent of the total cost of current operation for transportation and 17 per cent for operating costs other than instruction, these two figures being based on average costs in the state. (3) Pay the difference between the cost of the minimum program for each parish as figured on this basis and the amount which would be received from the present state school fund from parish sources and a three and one-half mills parish-wide tax from this equalizing fund.

The only objection offered to the proposed plan is that no provision is made for capital outlay expenditures. Since capital outlay represents an educational cost, it seems that the state has the same obligation as for the regular current operating expenses.

T. C. HOLY

TURNER, C. E. *Curriculum Construction for Health Education.* Cambridge, Massachusetts: Massachusetts Institute of Technology, 1929. 11 pp. (Contribution from the Department of Biology and Public Health. Vol. 64, No. 104)

The author of this pamphlet states that the steps to be followed in making a curriculum in health education are as follows: First, secure a representative group from the health and education specialists in the community and formulate the educational principles and philosophy which are to guide the development of the curriculum. Second, develop complete lists of material from which the best can be selected and adapted to individual grade levels. This will include master lists of the desirable health habits, attitudes, knowledge, and, in addition, the projects, methods, and devices which can be utilized to secure the habits, attitudes, and knowledge desired. Third, allocate certain portions of these habits, attitudes, and knowledge to the various school grades according to the natural interests of children for the age in question.

The reviewer believes that this technique is particularly weak at the latter point. It seems that instead of listing the natural interests of children for each age and selecting certain extraneous incentives for encouraging health practices, that we might better carry on research at each level to find out what the health interests of children actually are. This does not imply that children should dictate what the health curriculum should be, but that the insistent health problems of children should form a part of the health curriculum.

D. H. SUTTON

CONFERENCE NOTES

Adult Education

An ambitious and an attractive program has been arranged for the section on adult education, its four speakers representing the significant reaches of this movement. F. P. Keppel, president of the Carnegie Foundation, and Morse Cartwright, American Association of Adult Education, will bring to the section a point of view evolved through a rich field experience. On the other hand, evidence of university contact with the movement will be effectively established by Wilfred Shaw, University of Michigan, and Levering Tyson, Columbia University.

Art

The art section will again bring to its followers the type of program for which it has gained considerable fame during the years of the Conference, a program that provides the teacher with the freshness of view that comes from those who are having "art" work to do in the business of living. Rollo Brown, known to the teachers of Ohio both for his brilliance as a lecturer and his stimulation to creativeness in teaching through such writings as "How the French Boy Learns to Write," will join with Frank Sohn of the Vitrolite Company, Chicago, to give distinctive character to the program presented this year.

Attendance Supervisors, School Nurses, Visiting Teachers

An experimental college, the nation's oldest university, and a fine, modern public-school system will be represented on the program presented to attendance supervisors, school nurses, and visiting teachers. W. M. Leiserson, professor of economics at Antioch College, will bring to the program not only an experience gained in an institution that has broken with tradition, but a rich experience in social and economic problems as well. Elton Mayo, Harvard University, and Miss Ethel Reynolds, director of the visiting-teacher division of the Cincinnati public school system, will also address this section.

City Superintendents

City superintendents at this Conference will be presented with a program that has been organized, with reference to the geographical location of the speakers, on a coast-to-coast basis. The West furnishes E. P. Cubberley of Stanford University, a speaker who needs no introduction to city superintendents in Ohio, nor in any other section of the country. The East sends its representative from New York, J. H. Newlon of the Lincoln School, Teachers College, Columbia University. The Middle West is represented by Dudley T. Fisher of Columbus. Mr. Fisher, through an association with the Columbus League for the Hard of Hearing, has spent recent years studying the problems of the deafened child and will bring a rich experience to the Conference.

Commercial Education

Commercial education is this year organizing a program that is both impressive and significant. Ten speakers have been secured for this meeting, nine of whom represent Ohio school systems. The Ohio speakers are: Mary R. Barnette, Hughes High School, Cincinnati; Mrs. W. C. Brownfield, Glenville High School, Cleveland; Miss Grace Darrah, Woodward High School, Cincinnati; Lloyd L. Jones, Cleveland; C. L. McKillip, Tiffin Business University; H. H. Priest, Central High School, Columbus; A. G. Skeeles, supervisor of penmanship, Columbus; J. N. Smith, Libbey High School, Toledo; and D. M. Zeller, Western Hills High School, Cincinnati. Wisconsin will be represented on the program in the person of Paul A. Carlson, Whitewater, Wisconsin.

Educational and Intelligence Tests

Three universities are represented on the program of the educational and intelligence tests section—Yale, Columbia, and Ohio State. Mark A. May, Yale University, Ben D. Wood, Columbia University, and E. R. Wood, Ohio State University, are the speakers. This section, always largely attended, is fortunate in again securing speakers of national prominence. Both of the out-of-state speakers are well known in Ohio for their contributions to the testing movement.